

REMARKS

Claims 1, 2, 3, 12 and 15 - 20 have been amended. No claims have been canceled. Hence, Claims 1 - 30 are pending in the Application.

Summary of Office Action

Claims 1 – 30 are rejected under 35 USC 103(a) as being unpatentable over U.S. Patent 6,209,038 and further in view of "Scalable Timers for Soft State Protocols", herein Sharma, and U.S. Patent 6,154,849, herein Xia.

Rejections based on Cited Art

Claims 1 and 16

Claims 1 and 16, as amended, recite:

after a coordinator of said distributed transaction determines to initiate
commitment of said distributed transaction, a coordinating initiating
commitment of said distributed transaction; and
after said coordinator initiates commitment of said distributed transaction, then
determining whether to terminate said distributed transaction based on
said one or more time period values.

“To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations”. (MPEP 2143) Here, the cited references, alone or combined, fail to teach or suggest all the claim

limitations. Further, the modification posited by the Office Action has no reasonable expectation of success.

I. The cited art fails to teach all the features of claims 1 and 16

There are a number features of claims 1 and 16 not taught or suggested by the cited art. Among these features are "determining whether to terminate said distributed transaction based on said one or more time period values" "after said coordinator initiates commitment of said distributed transaction..." The cited art fails to disclose or suggest in any way this feature.

In support of its rejection, the Office Action has correlated Bowen's use of a timer to terminate a transaction to the use of the claimed time periods to terminate a transaction. Admittedly, Bowen teaches to use a timer to determine whether a transaction can be committed before a coordinator of the transaction begins commit processing. However, after the coordinator initiates commitment of the transaction, Bowen emphatically and unequivocally teaches not to use the timer to terminate a transaction. As proof, the following passages from Bowen are provided.

Where no WTID exists for this conversation, step 610 creates the WTID and optionally, may set a timer at step 615, for the purpose of providing a technique to terminate the work in progress if the client does not respond in an appropriate time....In step 510, two possible validity checks include:

- 1) a test of whether the transaction has timed out; and
- 2) a test of whether the transaction identifier is meaningful to this server, i.e., known to or generated by this server. (col. 5 lines 49 – 55)

As the above passage shows, Bowen does teach that the timer is used to perform validity tests that determine whether or not to commit a transaction.

Additional validity checks may be performed. If the WTID is invalid, in step 515 the server rejects the client request.... If the WTID is determined to be

valid, then at step 520, the server 103 (FIG. 1) initiates commit processing by invoking a call to the commit coordinator 106 (FIG. 1). The commit coordinator 106 (FIG. 1) handles all commit processing and recovery related to the transaction. (col. 5, lines 56 – 63)

Referring back to FIG. 2(c), at step 525, the Web communication resource manager terminates the timer set for the transaction **since the timer is only needed when the transaction is active, i.e., the time prior to transaction commit processing.**

Importantly, the preceding passage teaches that the timer is reset before a coordinator undertakes commit processing because the timer is not needed during transaction commit processing, which is performed by the coordinator. Thus, Bowen expressly teaches against "determining whether to terminate said distributed transaction based on said one or more time period values" "after said coordinator initiates commitment of said distributed transaction...".

The Office Action has also correlated a Web server transmitting a web page with a commit button to determining whether to terminate said distributed transaction after determining to undertake commitment of the distributed transaction. One skilled in the art is unable to fathom this allegation. Nevertheless, even if it is assumed true, the transmission of the web page occurs before the coordinator undertakes commitment of the transaction. It does not occur after a determination to initiate a commitment of a transaction and the initiation of the commitment, where these acts are made by a coordinator of the transaction.

II. There is no reasonable expectation of success for the combination posited

Finally, not only does Bowen fail to teach limitations discussed above, there is no reasonable expectation of success for the modification of Bowen posited by the Examiner. MPEP 2143.02 states that for *prima facie* obviousness, a "Reasonable

Expectation of Success Is Required" ... "The prior art can be modified or combined to reject claims as *prima facie* obvious as long as there is a reasonable expectation of success."

The Office Action states that it would be obvious for "one of ordinary skill in the art to modif[y] the fixed timeout values in Bowen with dynamically adjusted timeout values based on various conditions including network latency, server load, etc. because it would improve performance of the system and prevent premature transaction failures." Presumably, the Office Action is alleging that adjusting timeout values improves performance because it prevents premature transaction failures.

Such a modification promises no reasonable chance of success. The timeout period sets a threshold duration within which a client user must request commitment of a transaction once a transaction is started for a conversation. (See col. 5, lines 39 – 40). A conversation is a sequence of communications of pages. (col. 3, lines 10 – 22) The timer is set when a transaction is begun for a client, i.e. "where no WTID exists for this conversation" (col. 5, lines 39 – 40) The expiration of the timer is a validity check performed before a coordinator is requested to undertake commit processing. If the timer has expired, then the "conversation may be terminated with an error message." (col. 5, lines 58-59)

The timer, in effect, bounds the duration of a conversation between a client and the server. Given the server is sending web pages to a user, the duration of a conversation is, for all practical purposes, dictated by user response to the pages, not by network latency. The duration of a conversation can be extended by, for example, a user browsing and reading, at length, many pages or by leaving a client computer. One skilled in the art instantly realizes that user interaction is a factor that eclipses network latency. Network latency is thus a wholly inadequate factor for bounding the duration of a conversation.

For example, naively decreasing timer period values because, for example, network latency is low, may in fact increase premature termination of transactions.

Claims 12 and 19

For reasons similar to those discussed with respect to claims 1 and 16, the cited art fails to teach or suggest in any way that "termination criteria is used for determining whether to terminate said distributed transaction after a coordinator of said distributed transaction initiates commitment of said distributed transaction " Therefore, claims 12 and 19 are patentable. Reconsideration and allowance of claims 12 and 19 is respectfully requested.

Claims 15 and 20

For reasons similar to those discussed with respect to claims 1 and 16, the cited art fails to teach or suggest in any way that "if changes in latency satisfy adjustment criteria, then adjusting said one or more time period values used for determining whether to terminate said distributed transaction after a coordinator of said distributed transaction initiates commitment of said distributed transaction " Therefore, claims 15 and 20 are patentable. Reconsideration and allowance of claims 15 and 20 is respectfully requested.

Pending Claims

The pending claims not discussed so far are dependant claims that depend on an independent claim that is discussed above. Because each of the dependant claims include the limitations of claims upon which they depend, the dependant claims are patentable for at least those reasons the claims upon which the dependant claims depend are patentable. Removal of the rejections with respect to the dependant claims and allowance of the dependant claims is respectfully requested. In addition, the dependent claims introduce additional limitations that independently render them patentable. Due to the fundamental difference already identified, a separate discussion of those limitations is not included at this time.

For the reasons set forth above, Applicant respectfully submits that all pending claims are patentable over the art of record, including the art cited but not applied.


Accordingly, allowance of all claims is hereby respectfully solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Respectfully submitted,

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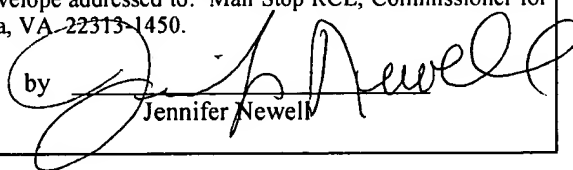
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

on January 26, 2006

by


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